

V-GROOVING MACHINE



OUR COMPANY

For the past 40 years since 1982, our machines have been used by more than 50000 customers around the world. Over the years, ADH has focused on innovative research and development, and has become a leading manufacturer of metal sheet metal forming, laser cutting equipment and intelligent solutions.

- 40 years manufacturing & servicing experience
- Export to over 80 countries
- More than 40 technicians
- Rank top 5 in China



 EMPLOYEES

617

 PRODUCTION BASES

3

 ANNUAL SALES VOLUME

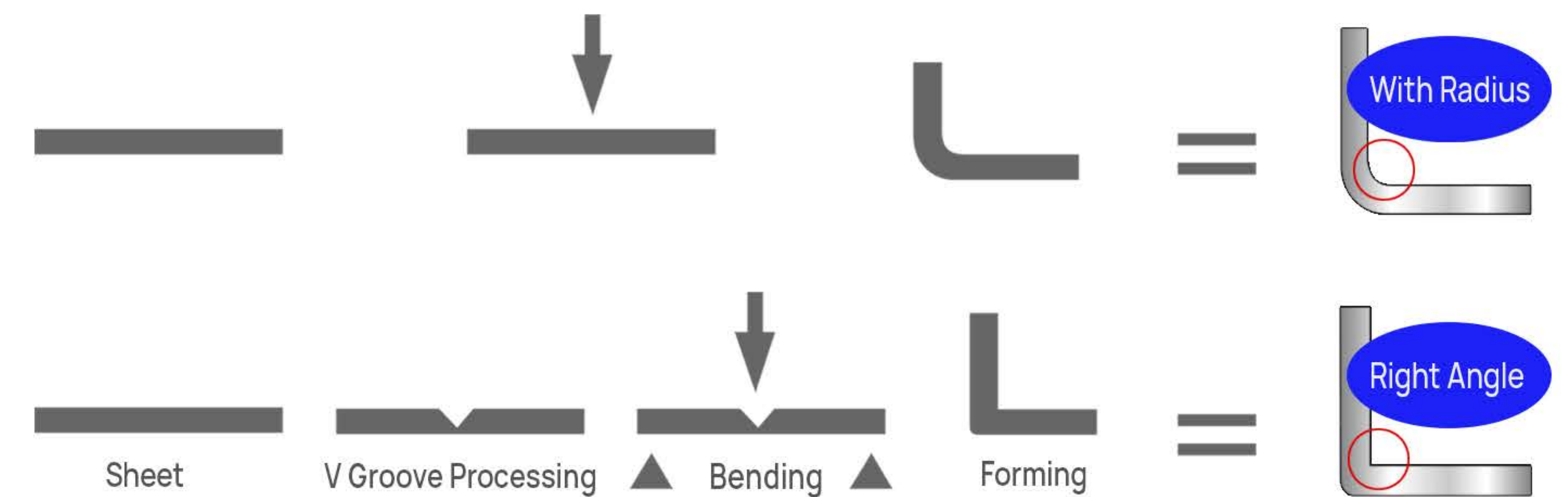
5000

 SALES/SERVICE OFFICE

67



- CNC V-grooving machine, also known as CNC slotting machine, is applied for industries that need high precision processing plate, such as elevator, decorative materials, stainless steel processing, household appliances and others. Steel plate welding structure, annealing aging treatment, good stability, high working precision, high processing efficiency, all these reduce the labor intensity of workers greatly.
- Planer slot, also called as V-grooving, is a auxiliary process for metal or nonmetal bend molding. In need bending forming On bending line of the metal or nonmetal material, we slot a v-grooving with special cutter plane. It makes the material easy to bend and the bending angle R can be minimized. Then bending and forming by machine or hand. By this processing, the product can meet the requirements of appearance. The depth, width and angle of v-groove can be ensured by the amount of the shape of the planer during planing.



CASE PRODUTS OF APPLICATION FIELD



ESCALATOR



DECORATION



KITCHEN



SHOWER ROOM

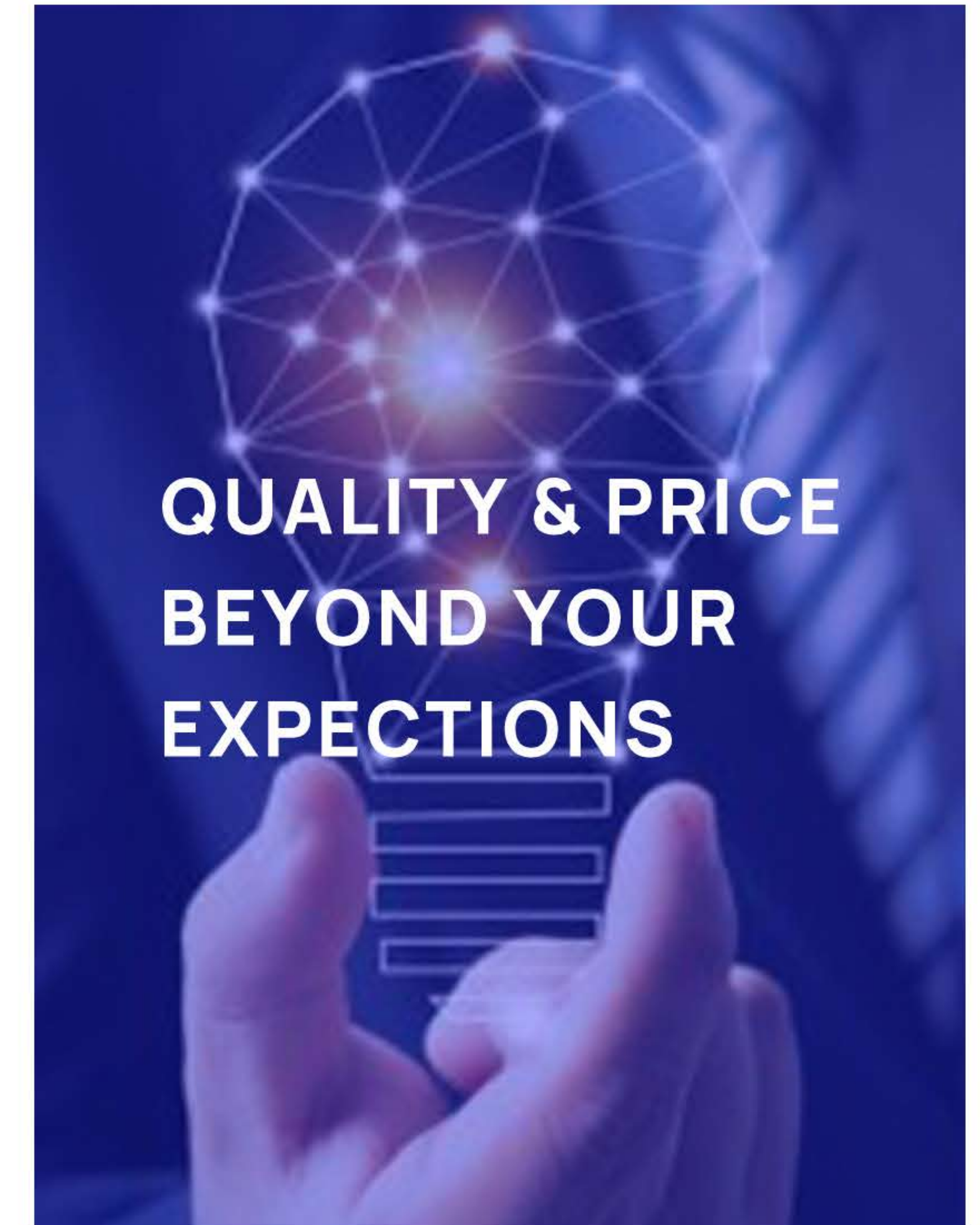


METAL DOOR INDUSTRY

RELIABLE



**STRONG AT
AFTER-SALE SERVICES**



**QUALITY & PRICE
BEYOND YOUR
EXPECTATIONS**

STANDARD

- Large screen touch CNC controllersystem - Taiwan Easycat
- Hydrauliccontrollersystem - TAIWAN
- Inverter - INVT
- Cylindersealingcomponents - JAPANUALQUA
- Proximityswitch - Japan OMRON
- Main motor - DONGLI
- Single/double pole air switches - Schneider
- AC contactor and thermal relay - Schneider
- Circuit breakers, buttons - Schneider
- Miniature relays - Schneider
- Steel - knife - CHOLE from Korea
- Linear Guide - HIWIN from Taiwan
- Machine cablel - GUSF rom Germany

OPTIONAL

- Blade with different material for cutting mild steel, brass, aluminum etc.



HIGH-SPEED GANTRY V GROOVING MACHINE



- The frame structure design of V-grooving machine base and beam is adopted. The worktable is made of 60mm low alloy high strength structural steel. The frame is made of Q345 steel plate. The machine tool has good overall rigidity and is firm and durable.
- V-grooving machine machined parts are fixed by hydraulic clamping system, and flexible clamping and unloading devices are adopted: high-precision guide system, position measuring system and hydraulic balancing function, so as to meet the needs of processing plate surface without trauma as much as possible.
- Hydraulic compaction, adjustable material pressing force, reliable compaction, hydraulic system with accumulator compensation, motor clearance work, energy saving and oil temperature control.
- V-grooving machine uses 4 knives to machine the "V" groove, so the cutting amount is evenly distributed and the deformation of the machined parts is reduced. In addition, a micro cooling system is selected to prolong the service life of the cutter and reduce the production cost.



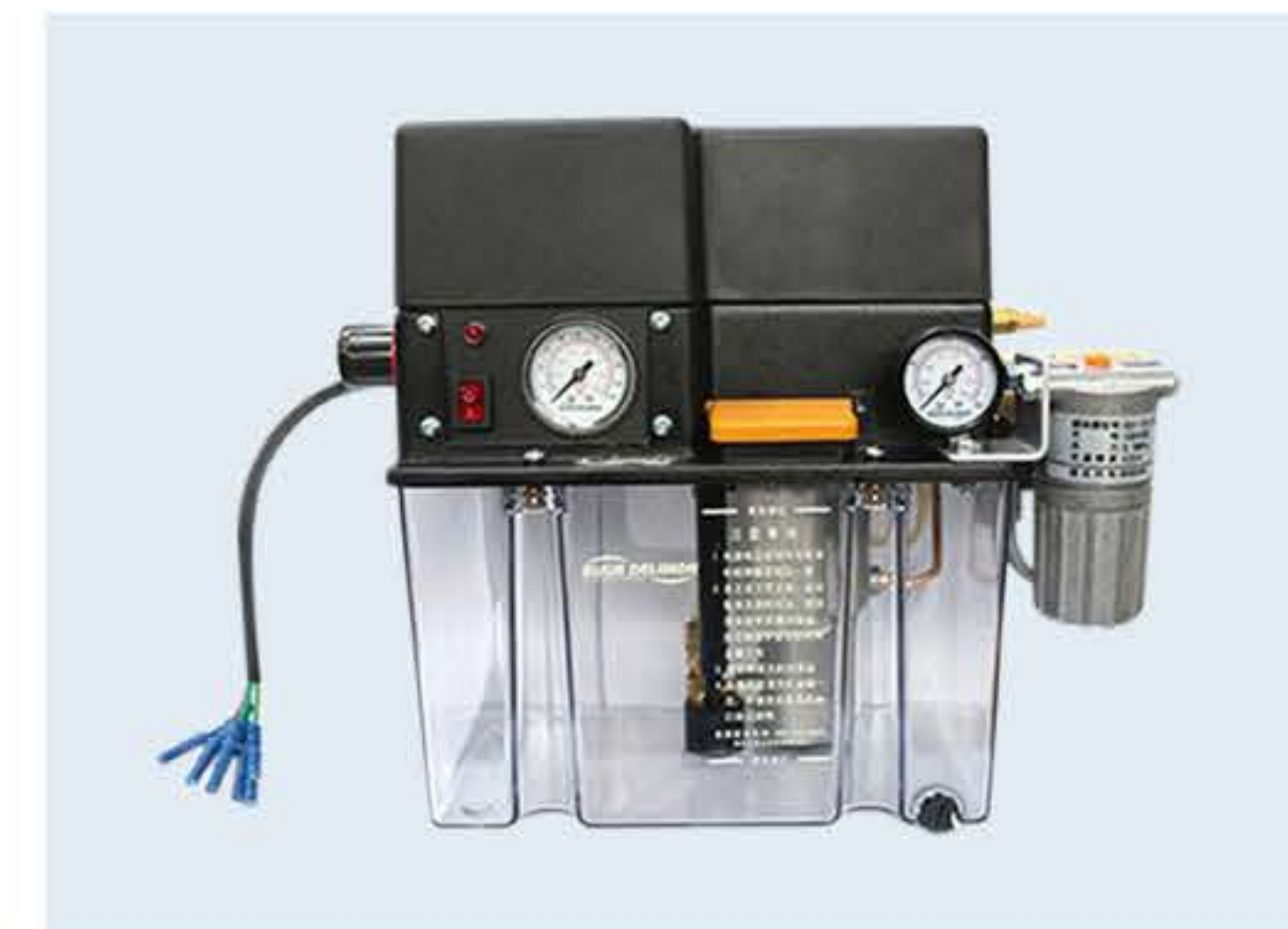
MOTOR



ELECTROMAGNETIC VALVE



BLADE CARRIER



SPRAYING COOLING SYSTEMS



TOOTHED RACK



PRESS FOOT

HIGH-SPEED GANTRY V GROOVING MACHINE



CONTROLLER

- Only input data with the keyboard and the processing program is needed in order to complete the slot.
- According to the different materials, the processing speed can be adjusted with the knob to facilitate the operation.
- The processing procedure can be monitored through the display screen. When the V grooving machine is abnormal, the alarm information will be shown on the screen and make it easy to repair.

TOOL CARRIER TRANSFER DEVICE

- SFSR static ball screw and QR ball screw are used in the tool frame transfer device, so the precision is high.

SELF-HEALING BED

- With self-planer capability, the surface can be repaired after wear and tear, making the machine fresh.

BLADE

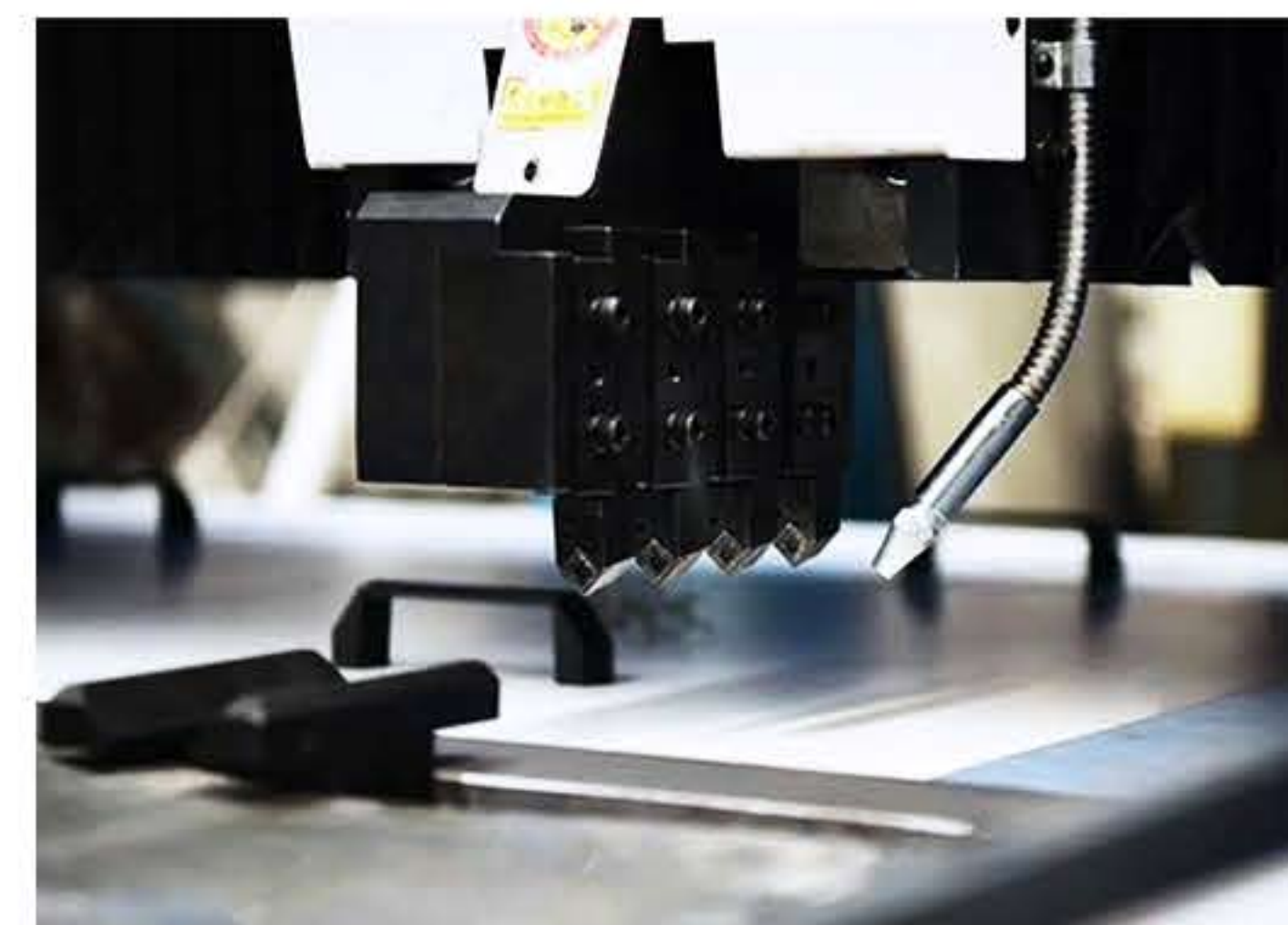
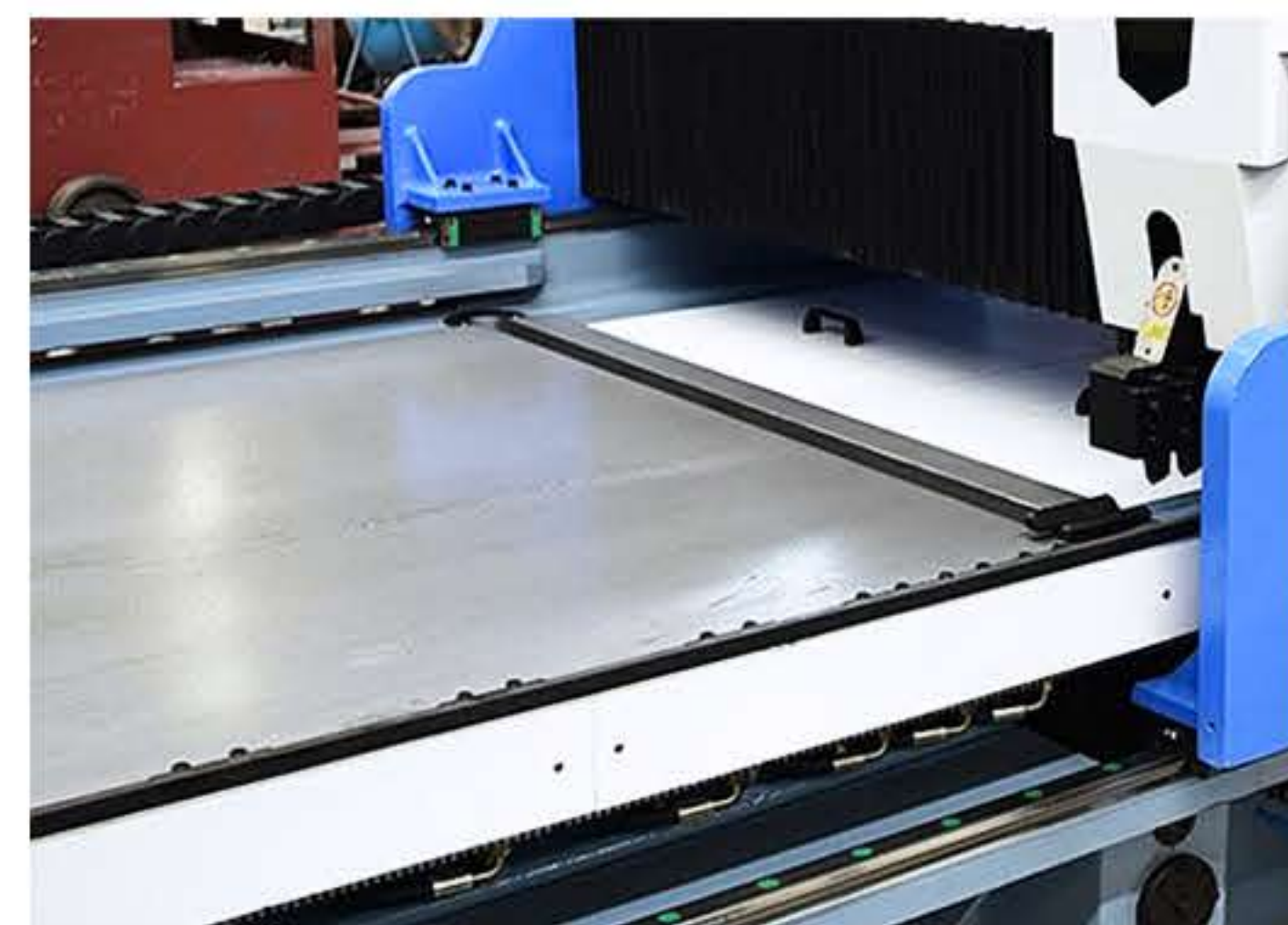
- The "V" slot is processed by 4 knives, so the cutting quantity is evenly distributed to reduce the deformation of the workpiece.

FRAME AND BEAM

- The bed and beam of V grooving machine are all designed with the frame structure and the working table is made of 60mm low-alloy high-strength structural steel while the frame is made of Q345 steel, which make it not only rigid but also durable.

BODY

- The bed of V grooving machine adopts natural gas tempering to eliminate welding stress and reduce equipment deformation.
- Through the sandblasting treatment to ensure a good paint coating effect.



HIGH-SPEED VERTICAL V GROOVING MACHINE



- V-grooving machine is an upgraded product of traditional V-grooving machine, which can be used for V-grooving back and forth to improve grooving efficiency.
- High-speed CNC thin plate V-grooving machine adopts precision ball screw as power transmission element, which has the characteristics of high processing precision and is especially important for high-end products.
- The material pressing system uses hydraulic system as power, with high pressure, reliable fastening force, low noise and low energy consumption.
- Frame structure is adopted, high-strength bolts are connected, and the worktable is heat-treated to eliminate stress, thus ensuring overall rigidity and reducing deformation.
- Whole steel plate welding, high strength bolt connection, strong shock resistance, use large tempering furnace to eliminate stress, with good stability.

FRAME (Tempering)

- The frame is welded with steel plate, and the internal stress is eliminated by tempering to prevent the body from deforming.

BACKGAUGE/BEAM/BED (Rear Feeding)

- Vertical V grooving machine adopts rear feeding structure, fixed beams, the replaceable worktable, the problem of bed surface deformation is completely been solved. The flatness of the bed is in the range of $\pm 0.03\text{mm}$, which ensured the depth precision of the grooving quality.

SHAFT COUPLING (High-quality)

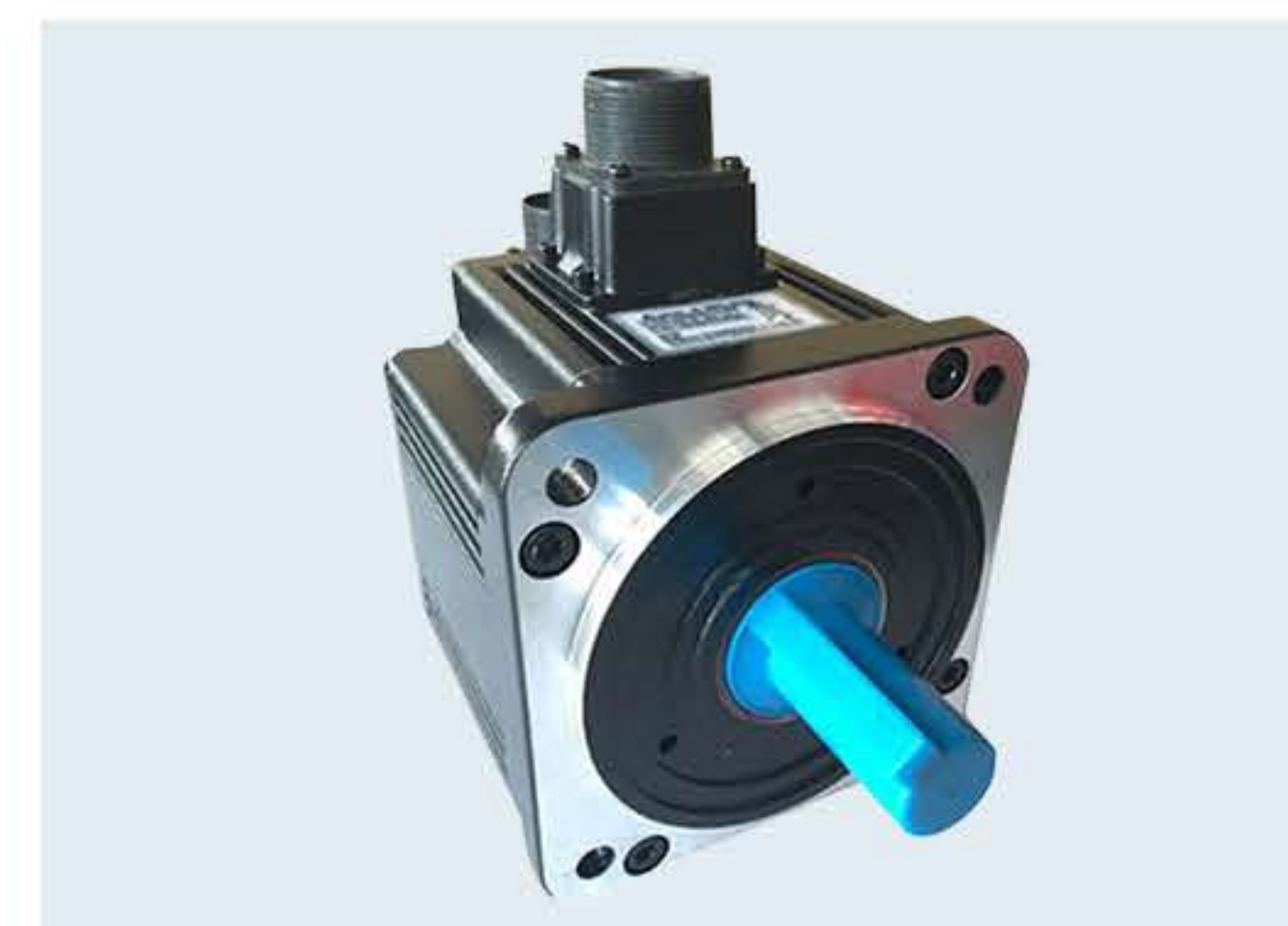
- Micro cooling system will extend blade life and reduce production cost.

CONTROLLER (CNC Control/Touch Screen)

- Equipped with special NC system, closed-loop servo system to ensure accurate positioning.
- Simple parameter setting, large user's process storage, real-time graph display.
- Automatic execution procedure, automatic alarm diagnosis system.

SERVO MOTOR (Ensure high accuracy)

- The moving speed, accuracy and stability can be ensured with the servo motor.



HIGH-SPEED VERTICAL V GROOVING MACHINE



HIGH-PRECISION BACKGAUGE (Driven by servo motor)

- High precision rear feed is driven by servo motor, high-speed ball screw and linear guide.

BLADE CARRIER (Ball screw and servo motor drive)

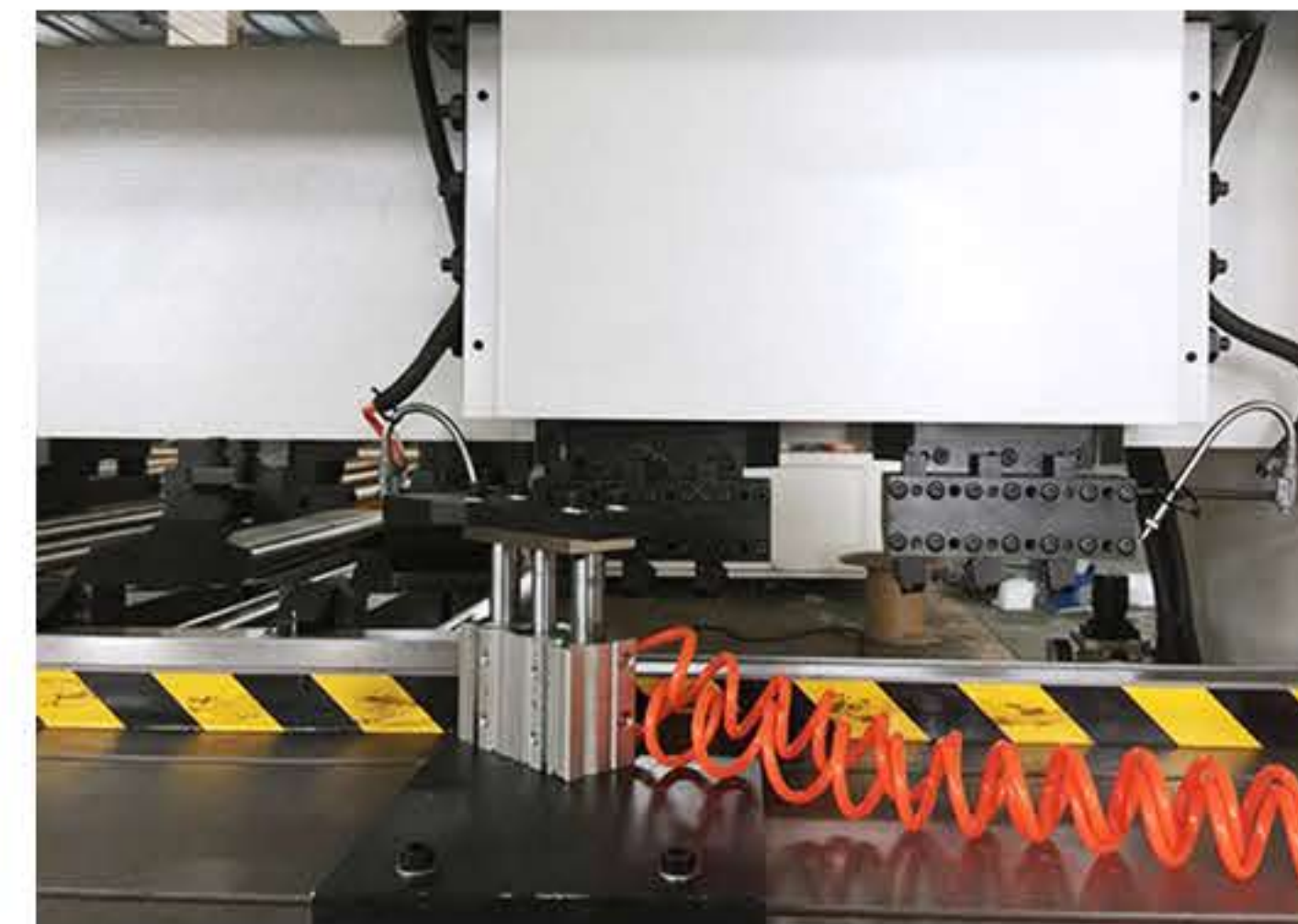
- The tool holder adopts high precision ball screw and servo motor drive to achieve high speed and high precision.

PRESS FOOT (Hydraulic Pressing)

- Hydraulic clamping and hydraulic independent pressing plate are adopted to ensure the pressed metal plate is firm

WORKING TABLE (Hardness HRC55-60)

- The working table is made of carbon tool steel. After high-frequency quenching, the hardness reaches HRC55-60, which is higher than that of stainless steel plate. The problem of groove mark due to low hardness of worktable caused by long working time has been solved thoroughly.



FOUR-DIRECTIONS V GROOVING MACHINE

FANCE SCHNEIDER ELECTRONIC COMPONENTS

- Short-circuit & overload current protection, more secure and stable.

TAIWAN RACK AND PINION

- High load-bearing, high precision and high rigidity

JAPAN YASKAWA SERVO

- Highest amplifier response, high precision, high speed, high torque, large inertia, stable performance and durability.

FRANCE MOTOVARIO REDUCER

- High tensile rigidity, high precision, low noise, ip65 protection level, to ensure the sustainable operation of 90 degrees.

TAIWAN HIWIN LINEAR GUIDEWAY

- Low noise, smooth movement, high load-bearing, strong rigidity and high accuracy.



Specifications

ADHK Horizontal V Grooving Machine

Model	3200*1250	4000*1250	4000*1500	5000*1250	5000*1500	6000*1250	6000*1500
Max grooving width (mm)	1250	1250	1500	1250	1500	1250	1500
Max grooving length (mm)	3200	4000	4000	5000	5000	6000	6000
Max grooving height (The flatness of stainless steel sheet is less than 3mm) (mm)	4	4	4	4	4	4	4
Min grooving thickness (mm)	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Min distance between V-groove and edge (mm)	8	8	8	8	8	8	8
Max cutting speed m/min	0-90	0-90	0-90	0-90	0-90	0-90	0-90
Return speed	0-120	0-120	0-120	0-120	0-120	0-120	0-120
Left and right movement resolution of tool rest (mm)	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Positioning accuracy (mm)	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01
Up and down movement resolution of tool rest (mm)	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Positioning accuracy (mm)	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01
Power of main servo motor (kw)	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Hydraulic system working pressure (Mpa)	7-9	7-9	7-9	7-9	7-9	7-9	7-9
Machine size (L*W*H)	5300*2300*1700	6100*2300*1700	6100*2600*1700	7100*2300*1700	7100*2600*1700	8100*2300*1700	8100*2600*1800

Specifications

ADRK Vertical V Grooving Machine

Model	3200/1250	3200/1500	4000/1250	4000/1500
Max grooving width (mm)	1250	1500	1250	1500
Max grooving length (mm)	3200	3200	4000	4000
Max grooving height (The flatness of stainless steel sheet is less than 3mm) (mm)	6	6	6	6
Min grooving thickness (mm)	0.4	0.4	0.4	0.4
Min distance between V-groove and edge (mm)	8	8	8	8
Max cutting speed m/min	0-90	0-90	0-90	0-90
Return speed	0-120	0-120	0-120	0-120
Left and right movement resolution of tool rest (mm)	0.001	0.001	0.001	0.001
Positioning accuracy (mm)	±0.01	±0.01	±0.01	±0.01
Up and down movement resolution of tool rest (mm)	0.001	0.001	0.001	0.001
Positioning accuracy (mm)	±0.01	±0.01	±0.01	±0.01
Power of main servo motor (kw)	4.5	4.5	4.5	4.5
Hydraulic system working pressure (Mpa)	6-8	6-8	6-8	6-8
Machine size (L*W*H)	4800*2650*2100	4800*2850*2100	5850*2650*2100	5850*2850*2100



CONTACT US

ANHUI DONGHAI YUXIANG IMPORT&EXPORT CO.,LTD

Tel: +86-555-6760666

Email: info@adhmt.com

Web: www.adhmt.com

Adress: NO.1259,Liaohe Road,Xinshi Industrial Zone,
Bowang District, Maanshan City